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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,637	02/24/2004	Leon Lumelsky	RE2000-03B	3746

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EXAMINER

VU, MICHAEL T

ART UNIT	PAPER NUMBER
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2617

DATE MAILED: 11/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/785,637	Applicant(s) LUMELSKY, LEON	
	Examiner Michael Vu	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-30, 32, 57-63, 77-81 and 92 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-30, 32, 57-63, 77-81, 92 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 25-30, 32, 57-63, 77-81, and 92 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 25-30, 32, 57-63, 77-81, and 92 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lappetelainen (US 2006/0178151) in view of Driessen (US 5,936,578).

Regarding **claims 25, 57, and 77**, Lappetelainen teaches a method for dynamically tuning a directional antenna of a wireless device for communicating with an access point in a short-range wireless networking environment including at least one wireless device and at least one access point (Figure 1, [0031, 0036-0038]), comprising the steps of: establishing a network link between a selected one of the wireless devices (Figure 1, link between a Mobile #12, and Access Point #14) and a selected one of the

access points using the antenna of the selected wireless device and an antenna of the selected access point (Figures 1-2, [0031-0041]); the setting a position of the directional/omni-direction antenna (Figures 1-2, [0031-0041]); wherein the selected wireless device is an extension point device having a portable energy source [0010-0024, 0037, 0046]

But Lappetelainen does not clearly teach on the directional/omni-direction antenna to minimize a bit error rate along the established.

However, Driessen teaches multipoint-to-point wireless system using antennas for the transmitter antenna and the receiver antenna is less than 15.degree.; when such antennas are used, a data transmission rate exceeding 1 Gb/s may be achieved with a minimal bit error rate, and also contemplated that an omnidirectional or broadbeam antenna used for either the transmitter or the receiver (See Col. 4, line 4-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Lappetelainen, such the directional/omni-direction antenna to minimize a bit error rate along the established, to reduce cost and avoid reception of all multipath signals incident to or received by a receiver.

Regarding **claims 26, 58, and 78**, the combination of Lappetelainen/Driessen teach a method according to claim 25, wherein the step of setting the position of the directional antenna further comprises the steps of: positioning the directional antenna at a plurality of angles toward the omnidirectional antenna; recording the bit error rate at each of the angles ([0054] of Lappetelainen); and selecting one of the angles which exhibits a minimal value of the bit error rate to be the position of the directional antenna

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and an omnidirectional antenna of the selected access point (See Col. 4, line 4-61) of Driessen.

Regarding **claims 27, 59, and 79**, the combination of Lappetelainen/Driessen teach a method according to claim 26, wherein the plurality of angles are selected by first locating an initial position beyond which communication using the directional antenna is not possible (See [0024-0046]) of Lappetelainen.

Regarding **claims 28 and 60**, the combination of Lappetelainen/Driessen teach a method according to claim 25, further comprising the step of setting a power of transmission of the directional antenna to a minimum value required to communicate on the established link [0031-0054] of Lappetelainen.

Regarding **claims 29, 61, and 80**, the combination of Lappetelainen/Driessen teach a method according to claim 28, wherein the step of setting the power of transmission of the directional antenna further comprises the steps of: setting the power of transmission to a default value; recording a bit error rate at the default value; successively reducing the power of transmission until connectivity is lost or the bit error rate crosses a threshold; and setting the power of transmission to be a value that results in the bit error rate staying below the threshold [0052-0054] of Lappetelainen.

Regarding **claims 30 and 62**, the combination of Lappetelainen/Driessen teach a method according to claim 29, wherein the threshold is a maximum acceptable value for the bit error rate [0052-0054] of Lappetelainen.

Regarding **claims 32 and 63**, the combination of Lappetelainen/Driessen teach a method according to claim 25, wherein the selected wireless device is an end-user device (Fig. 1, Mobile device #12) of Lappetelainen.

Regarding **claim 81**, the combination of Lappetelainen/Driessen teach the system according to claim 80, wherein the threshold is a maximum acceptable value for the bit error rate (See Col. 4, line 4-61) of Driessen.

Regarding **claim 92**, the combination of Lappetelainen/Driessen teach the system according to claim 77, wherein the portable energy source is rechargeable (Figures 1-2, [0031-0054]) of Lappetelainen.

Response to Arguments

4. Applicant's did not amend claim 57 filed August 30, 2006, have been fully considered but they are not persuasive.

Regarding **claim 57**, computer program instructions for dynamically tuning a directional antenna of a wireless device for communicating with an access point in a short-range wireless networking environment, the computer program instructions embodied on one or more computer readable media and comprising: computer program instructions for communicating with at least one wireless device; computer program instructions for communicating with at least one access point; computer program instructions for establishing a network link between a selected one of the wireless devices and a selected one of the access points using the directional antenna of the

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selected wireless device and an omnidirectional antenna of the selected access point; and computer program instructions for setting a position of the directional antenna to minimize a bit error rate along the established link.

Examiner respectfully disagrees. The examiner must give the broadest reasonable interpretation to all claim 57 that Chuah teaches end systems and/or computer are using a wireless local area network link, and wireless local area network access point and/or in the short-range wireless networking environment that includes directional/omnidirectional antennas over the air link (See Figure 2, Computer/Laptop #32, Access Point #36, established over the air link #34, controlled by Medium Access Control (MAC), See paragraph Col. 5, line 60 through Col. 7, line 26).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vu whose telephone number is (571) 272-8131. The examiner can normally be reached on 8:00am - 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael T. Vu


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER